

The ILLINOIS ENGINEER

ILLINOIS SOCIETY OF PROFESSIONAL ENGINEERS
INCORPORATED

Affiliated with the National Society of Professional Engineers
614 East Green Street

Champaign, Illinois



VOLUME XXXII, NO. 8

SUMMER ISSUE

AUGUST, 1956

Vox Secretarii

By P. E. ROBERTS, *Executive Secretary*

Board of Direction

The Board of Direction held a meeting on July 14 at Pere Marquette State Park Lodge, Grafton, Illinois. Regardless of the fact that this park is a considerable distance from the geographical center of the state, every Chapter was represented and all but three officers were present.

A revised report of the Fees and Salaries Committee was adopted by the Board at this meeting. They instructed that the committee's recommendations, putting the salary schedule in one book and the fees schedule in another book, be followed. Upon completion of the books, a copy of each will be mailed to each person belonging to the Society. The Board further ordered that page proofs of the two books be read and okayed by the members of the Executive Committee.

A report of the Multiple Vice Presidents Committee was read in the absence of Vice President Neureuther. The committee recommended that the Society consider electing three Vice Presidents, one to follow up the work of committees, one to be liaison for the functional sections, and one to concentrate on Chapter activities.

Refresher Course Classes

A year ago the Illinois Society, working with the Division of Extension, University of Illinois, sponsored fourteen refresher course classes in preparation for the November professional engineering examination. These classes were held in Chicago, Bloomington, Danville, Decatur, DeKalb, Joliet, LaGrange, Ottawa, Rockford, Springfield, and Urbana. Chicago had three classes and LaGrange two. The total attendance at the classes was nearly 400. This year already five classes have been organized and there are indications that at least four more will be held. Classes are held once a week for eleven consecutive weeks, and those who have availed themselves of the help have been enthusiastic in their praise. If a class has not been proposed for your Chapter area and you desire this kind of help, contact your Chapter President or Secretary at once.

The fall examination will be held on November 29 and 30, and for those who cannot attend a class, the examination book questions are available from the Secretary's office.

Chapter Activities

This time of year Chapters have picnics, golf days, or

(Continued on page 2)

CIVIC OPPORTUNITIES FOR ENGINEERS

By ROYCE E. JOHNSON

"At last I have found a quiet place to study. It is in the Engineering Library where it is dead just like the engineering students." So wrote a freshman liberal arts student, a resident of a fraternity house, who was having difficulty locating a good place to study.

Unwittingly he paid the engineering students a compliment. Their seriousness of purpose, contrasted to that of many college students, augers well for the engineering profession. But he also put the finger on a characteristic of engineers which to many seems unprofessional; they concentrate on engineering problems to the exclusion of serious interest in civic and social affairs.

It is difficult and nearly impossible to become a competent engineer and simultaneously develop as a well-informed citizen. The sequence for those who do get into civic affairs generally is to acquire the engineering education and experience first and then, after attaining a considerable degree of maturity, become aware of citizenship problems and opportunities. Unfortunately too few engineers, for one reason or another, ever participate in civic or political affairs.

Since a professional society is concerned with matters affecting public welfare, it is good to ask ourselves a few appropriate questions to point up several opportunities where engineers can be of civic service with benefit to the community, themselves and the profession.

Who, by training and natural inclination, is more fitted to think in terms of cause and effect? Who, if he but had the interest and enthusiasm, would be a natural to serve on traffic and parking committees, planning commissions, building code committees, and electrical commissions in our cities?

What organization should be on the lookout to recommend legislative action where engineers can be helpful?

Shall the I.S.P.E. work for a change in the state law

SUBSCRIPTION RATES

\$2.00 per year in advance to members of the Illinois Society of Professional Engineers. \$4.00 per year in advance to non-members in U.S.A. and its possessions, Canada, and Mexico. Foreign \$6.00. Single copies 40c. Published by the Illinois Society of Professional Engineers, Inc., at 614 East Green Street, Champaign, Illinois. Address all communications to the Illinois Society, P. E. Roberts, Editor, 614 East Green Street, Champaign, Illinois. The Illinois Society is not responsible for statements made or opinions expressed in this publication. Entered as Second Class Matter April 27, 1949, at the Post Office, Champaign, Illinois.

which restricts membership in city electrical commissions to representatives of electrical contractors, journeymen electricians, fire department, fire insurance underwriters and electrical inspection department? *How about representation for house owners and industries who pay for the wiring jobs and the engineers who specify the work?*

And should not the I.S.P.E. work to prevent diversion of revenues from water departments, gasoline taxes and parking meters? Should not these revenues be reduced if they produce a profit or else be plowed back into improvements in the facilities that produced them?

Let's get our ideas together and support our Legislative Committee in promoting them. If we don't, why should anyone else? Talk up your ideas on legislation of interest to engineers and get your chapter representatives and various committee members to discuss them at the workshop conference Sept. 21 and 22. And plan more discussion of the long-range, slow-moving projects at the annual meeting.

VOX SECRETARII

(Continued from page 1)

other outside activities. On July 28 and 29 several members of the St. Clair Chapter journeyed to Mike Krause's cabin in Caledonia, Missouri, for a weekend. July 31 Capital Chapter held a picnic near the beach house on Lake Springfield. On August 2, Champaign County Chapter held a picnic and the Chapter officers were gratified to count over 100 members, wives, and children in attendance. Other Chapters undoubtedly have held or will be holding similar meetings.

Workshop Conference

On September 21 and 22 the Illinois Society will hold its first Workshop Conference for active committees and the Board of Direction. This Conference is being held at the University of Illinois' Robert Allerton Park and will begin at 2 o'clock on Friday, September 21. The committees will meet Friday afternoon and Friday night. The Board of Direction will meet directly after breakfast on Saturday morning to hear the reports of the committees and do the necessary follow-up work as a result of these conferences.

Miscellany

A letter from Secretary Emeritus Babbitt tells that he and Mrs. Babbitt contracted colds in the southern part of Brazil (it's winter there now), so they scheduled their next trip to the vicinity of the Equator to bake out. . . . Ken Waltz and his Membership Committee are working hard to attain the 2,000 total goal this year, which has been so elusive in the past. Help him and your Chapter by getting a couple of applications signed up this week.

One reason opportunity isn't recognized more often is that it goes around disguised as work.

Items of Personal Interest

F. G. "Ted" Olbrich (S '29, N '46) retired from the East St. Louis District of the Illinois Division of Highways on July 1, after 34 years of service. Mr. Olbrich has been head of the materials section since 1941. He was born in Iowa and graduated from the University of Illinois in 1920, coming to East St. Louis in 1922. In 1947 he was Vice President of the St. Clair Chapter and President in 1948. Ted has been active in the East St. Louis Kiwanis Club, Boy Scouts, the Legion, and various Masonic bodies.

* * *

Linas Brown, Chairman of the Fees and Salaries Committee, took his family to Pere Marquette State Park. They carry their own tent, so the Brown family never worries much about housing.

* * *

National Director and Past President Klassen was married during the first part of July. Mr. Klassen will take his bride to revisit some of the spots in the South Pacific for the World Health Organization. He will make his report in Geneva, Switzerland. Nice kind of a honeymoon if you can work it.

* * *

Word from Dixon tells that Chuck Willett is making slow but satisfactory progress on his recovery.

* * *

J. R. (Jack) Gardner vacationed in northern Wisconsin and had the opportunity to visit with Bill Oliver and his wife.

* * *

Secretary Spicer left on his vacation visiting points in the East and then up to Cape Cod and Falmouth.

* * *

Vice President Neureuther, his wife, Mary, and the oldest girl and boy, will visit historic points of interest along the Atlantic seaboard during the second and third weeks of August.

* * *

President Royce Johnson's son was married in Waukegan on August 11.

* * *

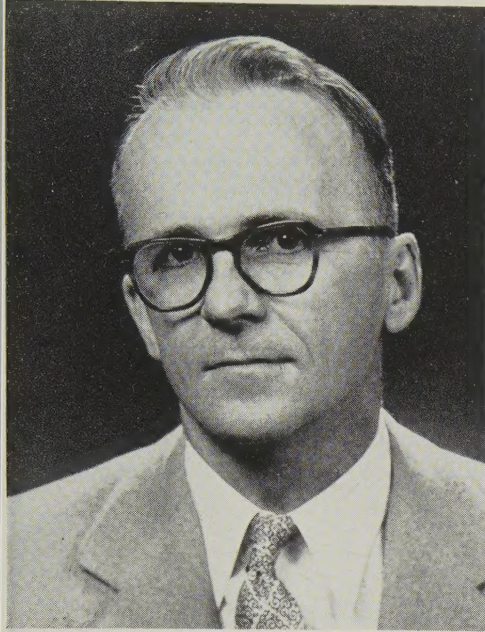
Mr. Walter H. Jollie, who has been a sanitary engineer with the Illinois Department of Public Health, has joined Baxter and Woodman in Crystal Lake.

A water works superintendent sends us this puzzle and answer: A motorist driving 50 miles an hour was approaching a railroad crossing 125 yards away. A train traveling 60 miles an hour was 375 feet from the crossing. Did the motorist get across? Answer: Yes he did. One made of marble.

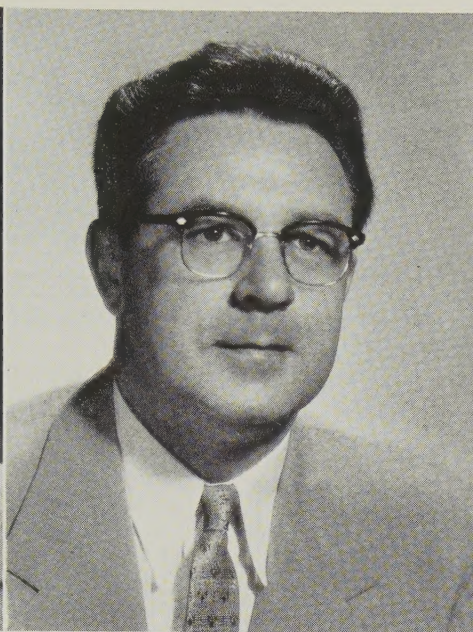
Engineer: "So you're not going to Paris, this year?"

Contractor: "No—It's London we're not going to this year; it was Paris we didn't go to last year!"

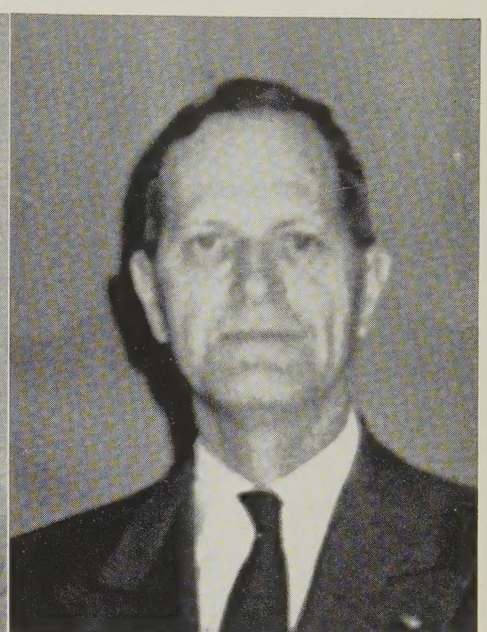
CONSULTING ENGINEERS ORGANIZE



L. K. CRAWFORD, PRESIDENT



C. N. DEBES, VICE PRESIDENT



J. R. GARDNER, SECRETARY

Twenty-six Consulting Engineers met in Springfield on June 23, 1956, and formed the Illinois Association of Consulting Engineers. Steps are now underway to expand the membership and to mold it into an effective organization. The new organization is the result of an exploratory meeting of consulting engineers held April 12 in Highland Park during the annual convention of ISPE. At the Highland Park meeting it was found that there was a great deal of interest in the formation of a state-wide consulting engineering group. A committee was selected to plan an organization. It was requested that the committee have their recommendations ready for a second meeting to be held within 60 days if possible. The second meeting was the organization meeting held not 60, but 72, days after the committee was formed.

Objectives

The objectives of the IACE, as stated in the constitution, are as follows:

To foster harmony throughout the engineering profession.

To promote a high standard of professional performance among its members.

To promulgate through consulting engineering practice appropriate policies of the National Society of Professional Engineers and the Illinois Society of Professional Engineers.

To develop interprofessional practice along recognized ethical channels for the benefit of the consulting engineer and the general public.

To promote the professional and economic welfare of its members.

To provide a functioning education program which will inform the people of the service provided by the consulting engineer for the community, state and nation.

To offer a reliable source of information for reply to inquiries regarding consulting engineering qualifications of member firms.

To advance the interests of consulting engineers in dealings with governmental agencies and with industry.

The members feel that a great deal of good will come from meetings and discussions of mutual problems. To this end, frequent meetings are to be held. The constitution provides a minimum of three each year. The IACE, however, will be more than a discussion group. It will work with contractors, equipment manufacturers, governmental agencies, and utilities in an effort to end so-called "free-engineering." It will work with architects, unions, and manufacturers to devise codes of practice to improve the services of the consulting engineer; it will attempt to police the practice to eliminate, insofar as possible, unethical or illegal practice; it will strive to increase the income of all engineers by securing fees and salaries comparable with those of other professions; it will conduct a campaign to sell the consulting engineer to the public.

Membership Grades

Two grades of membership are provided—Members and Associate Members. Members are those who are principals of consulting firms, who have been actively engaged in consulting practice for at least two years, have an established office, and who are at least 32 years old. Associate members are employees of firms having Members in the organization or principals who do not meet the minimum age or experience qualifications. Each Member must meet the following qualifications:

- a) Current registration in Illinois as Professional Engineer or Structural Engineer.
- b) National Member of ISPE.
- c) Without direct interest in sale of equipment, material, labor or services that might bias his judgment as a consulting engineer.

No salaried employee of a governmental agency or of

CONTRACTORS' DIRECTORY

PETER BAKER AND SON COMPANY

BITUMINOUS PAVING

Lake Forest

Illinois

ERIC BOLANDER CONSTRUCTION CO.

CONTRACTORS

Paving • Grading • Bridges
Piers • Dams • Sewers

Winchester Road

Libertyville, Illinois

E. A. MEYER CONSTRUCTION CO. GENERAL CONTRACTORS

Paving — Water Mains — Sewers

1539 Morrow Ave.

North Chicago, Illinois

SKOKIE VALLEY ASPHALT COMPANY, INC.

Des Plaines

Illinois

a firm, corporation or institution not engaged solely in the practice of consulting engineering is eligible for the grade of Member.

Although the membership is on an individual basis, voting privilege is limited to one vote per consulting engineering organization.

Functional Group Organization Proposed

The organizing committee considered seriously the idea of formation as a functional group of ISPE. A joint meeting was held with a special committee of ISPE appointed to work with the Consulting Engineers and with the chairman of a committee working on the general functional group idea. The final recommendation of the committee as endorsed at the Springfield meeting was that the Consulting Engineers should not form as a functional group but that provision be made for later affiliation if certain conditions are met by ISPE and if the membership of IACE votes for affiliation. The organization will, in effect, be very closely related to ISPE because of the requirement of membership in ISPE before joining IACE. It will work jointly with ISPE on matters of interest to all engineers but separately on those matters concerning consulting engineers only.

Formation of this organization in Illinois is not unique. Regional and state organizations of consulting engineers have been in existence for many years. The Chicago Association of Consulting Engineers, for example, was formed in 1921. The Consulting Engineers are organized nationally too. In October 1955, ten organizations of regional and state groups representing areas from New York to California met in St. Louis and took the preliminary steps toward forming a nationwide group. On July 6, 7, and 8, 1956, representatives of these 10 organizations met in Tulsa, Oklahoma, and formed the Consulting Engineers Council. Two other newly formed state organizations joined the Council at the Tulsa meeting. Seven other groups including the

Illinois Association of Consulting Engineers sent representatives to the Tulsa meeting.

The IACE constitution permits affiliation with the Consulting Engineers Council if the membership approves.

Officers and Board Members of IACE are:

President: L. K. Crawford, Springfield
Vice President: Charles N. Debes, Rockford
Secretary: J. N. Gardner, Decatur
Treasurer: Homer L. Chastain, Decatur.

Board Members:

Louis Pappmeier, Galesburg
Samuel J. Sibley, Springfield
Edward J. Wolff, Chicago
C. F. Abraham, Alton
J. D. Voorhees, Alton
Roy W. Kastner, Peoria.

Obituaries

Ralph K. Hursh

Ralph K. Hursh (S '44, N '46) died suddenly in Champaign on Thursday, July 12. Professor Hursh was stricken while driving his car after attending a Kiwanis Club meeting. He was born in Woodstock, Illinois, on December 21, 1885. He received a B.S. in Mechanical Engineering at the University of Illinois in 1908, a degree in Ceramic engineering in 1909. He did graduate work at Carnegie Institute of Technology and the University of Illinois between 1910 and 1913. He did the ceramic engineering on the University of Illinois Betatron during its construction. Besides the Illinois Society of Professional Engineers, Professor Hursh belonged to many technical societies, both in the chemical and ceramic fields. Before joining the University of Illinois staff in 1911, he was active as a Junior Ceramic Chemist in the U. S. Bureau of Standards at Pittsburgh.

PROFESSIONAL DIRECTORY

DE LEUW, CATHER & COMPANY

CONSULTING ENGINEERS

Transportation, Public Transit and Traffic Problems
Industrial Plants Grade Separation
Railroads Expressways
Subways Tunnels

Power Plants

Municipal Works

150 North Wacker Drive
Chicago 6, Illinois79 McAllister Street
San Francisco 2, Calif.

GREELEY AND HANSEN

ENGINEERS

Water supply, Water Purification, Sewerage, Sewage
Treatment, Flood Control, Drainage, Refuse Disposal

220 SOUTH STATE STREET
CHICAGO 4, ILL.

ALVORD, BURDICK & HOWSON

Water Works Water Purification Flood Relief
Sewerage Sewage Disposal Drainage Appraisals
Power Generation

20 NORTH WACKER DRIVE CHICAGO 6, ILL.

ROCK ISLAND BRIDGE & IRON WORKS, INC.

Charles R. Roberts, Member NSPE, President
FABRICATED STRUCTURAL STEEL FOR
BRIDGES AND BUILDINGS

1603 Mill Street Phone 6-4405
Rock Island, Illinois

JENKINS, MERCHANT & NANKIVIL

Consulting Engineers

Municipal Improvements
Power Development
Traffic Surveys
Flood Control
Air Ports

Sewerage
Water Systems
Industrial Plants
Recreational Facilities
Investigations and Reports

805 East Miller Street Springfield, Illinois

CRAWFORD, MURPHY & TILLY

CONSULTING ENGINEERS

Water Works, Sewerage, Airports, Street
Improvements, Traffic Surveys

PHONE 8-5619

755 S. GRAND AVE., WEST SPRINGFIELD, ILL.

LEE I. OSBORN

Engineer-Contractor

Bridges
Foundations
Docks & Pile Driving

Drainage & Levee Work
Heavy Excavation
Grading & Paving

P. O. Box 2 Muscatine, Iowa

RUSSELL AND AXON

CONSULTING ENGINEERS

Civil—Sanitary—Structural
Industrial—Electrical
Rate Investigations

408 Olive Street, St. Louis 2, Missouri
Municipal Airport, Daytona Beach, Florida

STANLEY ENGINEERING CO.

CONSULTING ENGINEERS

208 South LaSalle Street Hershey Building
Chicago 4, Illinois Muscatine, Iowa

HOWARD C. HARDY

CONSULTANT IN ACOUSTICS

Architectural Acoustics Noise Surveys
Noise Control of

Factories, Offices, and Living Areas

322 West Washington Blvd. Phone ANdover 3-6070
Chicago 6, Illinois

CRESCENT ENGINEERING COMPANY, INC.

Contracting and Consulting Electrical Engineers
Design, Supervision and Construction

Process Power and Lighting for Industrial Plants

6455 S. CENTRAL AVENUE CHICAGO 38, ILL.

Use of this space is limited to members and associates of the Society. This is a dignified and excellent way to let engineers know that your firm can always accept another account. The price is very reasonable. A card or letter to the Secretary, 614 East Green Street, Champaign, Illinois, will bring full details.

I hold every man a debtor to his profession;
from the which as men of course do seek to re-
ceive countenance and profit, so ought they of
duty to endeavor themselves by way of amends
to be a help and ornament thereunto.

Sir Francis Bacon

The only reason why many American families don't own an elephant is that they have never been offered one for a dollar down and a dollar a week.

One of our contractor friends says that last summer's drought was so severe that a neighbor of his had to lather his lawn before he could mow it.

Engineering Societies Personnel Service, Inc.

New York Chicago Detroit San Francisco
84 East Randolph Street, Chicago 1, Ill. STate 2-2748

For further information about these advertisements, apply to E.S.P.S. Chicago, using the key number indicated. Prepared ENGINEERS AVAILABLE advertisements limited to 40 words, with typed résumé attached may be submitted to E.S.P.S. Chicago by members of the Illinois Society of Professional Engineers at no charge.

If placed in a position, applicants agree to pay the established placement fee. These rates are available on request. A weekly bulletin of positions open is available to subscribers. Apply E.S.P.S., Chicago.

MEN AVAILABLE

Ind. Mgmt. Engr. 39, 3 plus yrs. exp. on staff in various plants, reported findings as to cost reduction work, prod. dev. improve methods, jet engine mfr. magnesium & alum. castings, worked on gauges, tools & fixture layout. \$7500. West. 532 IE

Chief Engr. LL.B. 47, 11 yrs. des. mech. facilities in heating, ventilating, plumbing & air cond. all metal trades des. & installation in constr. \$10,000. U. S. 533 IE

Chief Engr. M.E. 38, 15 yrs. exp. in mech. process work, supv. mech. engr. dept. in solving problems in cold heading, punch press forging, machining, etc., 6 of which were in charge of experimental tool & die work for new precision casting process. \$8700. Midwest. 535 IE

Asst. Supt. 37, 15 yrs. exp. in metal working, assembly & sheet plastics, design prod-

ucts, tools, process jobs. \$8000. Chicago N. W. Suburbs. 536 IE

Elect. Engr. E.E. 39, 9 yrs. as elect. engr. 4 of which were spent on constr. & des. in atomic energy, 1 in dev. of spec. models of small motors & 4 elect. engr. for power sta. & ind. plants. \$7200. Midwest. 537 IE

Chief Engr. E.E. 44, 20 yrs. in des. of contactors, starter magnetic switches, auto. control for ind. machines; 13 of which were in power plant des. substations control protection, mfrs. specs. & prints, wiring diagram, schematics, supv. drftg. squad. \$10,000. East-Midwest. 538 IE

Sales Engr. C.E. 31, 3 yrs. in sales of mat'l, handling & power transmission eqpt., 1 yr. layout drafting. \$7000. Midwest. 539 IE

Production or Plant Mgr. I.E. 35, 8 yrs. in metal fabrication, production planning, scheduling—dies & tooling—supv. 500 people. \$10,000. East or Midwest. 540 IE

POSITIONS AVAILABLE

Field Engr. Age up to 40, 2 plus yrs. in des. in sanitary or hydrology work. Duties: Supv. jobs, checking & field work, assisting principal of firm, local trav. for a contractor of drainage. Sal. \$125 wk. Loc. N. W. Chicago suburb. Empl. will pay the fee. C-5238

Structures Engr. Deg. or equiv. 1 yr. exp. Duties: Solve structural problems such as over-all load computations, stress & strain analysis, des. of struct. components & spec. stress problems. Plan & conduct static test of aircraft structures & des. necessary test eqpt. for a R. & D. mfr. of aircraft & missiles. Sal. up to \$9600 yr. Loc. Md. Empl. will pay the fee. C-5286

Chief Arch. Draftsman. Age up to 50, 10 yrs. exp. in arch. tech., know residential, commercial & industrial. Duties: Supv. the completion of working drawings on gen. arch. work. May do some design for an arch.-general. Sal. \$8-10,000. Loc. Chicago. Empl. will pay the fee.

Assoc. Prof. C.E. Duties: Teaching engr. mechanics, surveying & highway & reinforced concrete for an educational engr. Sal. \$5400 for 9 mo. Loc. Texas. C-5318

Engr. Specialist. Degree, 5 plus yrs. in planning dev. of new ideas, new prods., new eqpt., know engr. & economics. Duties: Evaluate economic values of res. & dev. work covering estim. of cost of complete plant. Considerable outside contact at professional & executive level, some trav. for a mfr. of alum. Sal. up to \$15,000. Loc. Va. C-5319



When you install Clay Pipe, you don't kick it together with your foot and call it a sewer. You install it to last. Your skill and the matchless, never-wear-out quality of the Clay Pipe itself make a dependable combination.

Why take chances with substitute sewerage materials? Salt Glazed Vitrified Clay Pipe has the power quality worthy of your highest skill.

STREATOR DRAIN TILE CO.

Streator, Illinois Phones 2131-2132

SALT GLAZED VITRIFIED SEWER PIPE
SALT GLAZED AND SHALE DRAIN TILE

ORNAMENTAL METALWORKS COMPANY

Steel Stairs and Metal Railings
Miscellaneous Iron & Structural Steel
Cast Iron Frames & Covers
Manhole Steps
Pipe Railing
Flag Poles
Weir Plates
Bronze Bolts
Grating & Frames
Stop Plates & Grooves
Steel Doors & Windows
Stainless Steel, Bronze & Aluminum
Aluminum Sash and Doors
Thresholds

440 South Franklin Street., Decatur, Illinois

PHONE 8-3446